

WHAT IS CLAIMED IS:

1. An information processing apparatus for producing print data to be printed by a printing device, comprising:

entry means for entering a designation of N-page printing in which drawing data of N pages ( $N > 1$ , N is an integer) is printed on one print sheet;

arranging means for, when the designation of N-page printing is entered by said entry means, arranging the drawing data of each page in each of equal N-divided areas of a physical sheet by scaling-down; and

print-data producing means for producing print data based on the drawing data arranged by said arranging means.

2. An information processing apparatus according to Claim 1, wherein said arranging means divides a printable region, which is obtained by subtracting print margins from sizes of the physical sheet, into equal N areas, and arranges the drawing data of each page in each of the equal N-divided areas by scaling-down.

3. An information processing apparatus according to Claim 2, wherein said arranging means executes offset processing for each of the equal N-divided areas of the printable region on said physical sheet such that four sides

095642-1-301  
T0321-1-301

of each said area, for which print margins are not subtracted from the sizes of the four sides thereof, are offset in amounts corresponding to the print margins.

4. An information processing apparatus according to Claim 1, further comprising spooling means for temporarily storing, in the form of intermediate data, drawing data input from an application through drawing means of OS,

wherein said arranging means executes processing to arrange the drawing data, temporarily stored in said spooling means, in each of the equal N-divided areas by scaling-down.

5. An information processing apparatus according to Claim 4, further comprising drawing-function producing means for producing drawing functions, which are interpretable by said drawing means of the OS, based on the drawing data arranged by said arranging means,

wherein said print-data producing means produces print data based on the drawing data input through said drawing means of the OS in accordance with the drawing functions produced by said drawing-function producing means.

6. An information processing apparatus, comprising:  
entry means for entering a designation of N-page

printing in which drawing data of N pages ( $N > 1$ , N is an integer) is printed on one print sheet;

physical N-page printing arranging means for arranging the drawing data of each page at a center of each of equal N-divided areas of a physical sheet by scaling-down;

printable region N-page printing arranging means for arranging the drawing data of each page in each of equal N-divided areas of a printable region on a physical sheet by scaling-down; and

determining means for determining which one of said physical N-page printing arranging means and said printable region N-page printing arranging means is employed to execute processing for arranging the pages, when the designation of N-page printing is entered through said entry means.

7. An information processing apparatus according to Claim 6, further comprising condition acquiring means for acquiring a physical N-page printing condition,

wherein said determining means determines, based on the physical N-page printing condition acquired by said condition acquiring means, which one of said physical N-page printing arranging means and said printable region N-page printing arranging means is employed to execute processing for arranging the pages.

8. An information processing apparatus according to Claim 7, wherein said physical N-page printing condition is information indicating which one of plural types of N-page printing is set to physical N-page printing.

9. An information processing apparatus according to Claim 7, wherein said physical N-page printing condition is information indicating that physical N-page printing is set when a predetermined output sheet size is designated.

10. An information processing apparatus according to Claim 7, wherein said condition acquiring means acquires said physical N-page printing condition from an external device.

11. A printing control method for producing print data to be printed by a printing device, comprising the steps of:

an entry step of entering a designation of N-page printing in which drawing data of N pages ( $N > 1$ , N is an integer) is printed on one print sheet;

an arranging step of, when the designation of N-page printing is entered in said entry step, arranging the drawing data of each page in each of equal N-divided areas of a physical sheet by scaling-down; and

Sheet 22 of 60

12. A printing control method according to Claim 11, wherein said arranging step divides a printable region, which is obtained by subtracting print margins from sizes of the physical sheet, into equal N areas, and arranges the drawing data of each page in each of the equal N-divided areas by scaling-down.

13. A printing control method according to Claim 12, wherein said arranging step executes offset processing for each of the equal N-divided areas of the printable region on said physical sheet such that four sides of each said area, for which print margins are not subtracted from the sizes of the four sides thereof, are offset in amounts corresponding to the print margins.

14. A printing control method according to Claim 11, further comprising a spooling step of temporarily storing, in the form of intermediate data, drawing data input from an application through drawing means of OS,

wherein said arranging step executes processing to arrange the drawing data, temporarily stored in said spooling step, in each of the equal N-divided areas by

scaling-down.

15. A printing control method according to Claim 14, further comprising a drawing-function producing step of producing drawing functions, which are interpretable by said drawing means of the OS, based on the drawing data arranged in said arranging step,

wherein said print-data producing step produces print data based on the drawing data input in said drawing means of the OS in accordance with the drawing functions produced in said drawing-function producing step.

16. A printing control method, comprising the steps of:

an entry step of entering a designation of N-page printing in which drawing data of N pages ( $N > 1$ , N is an integer) is printed on one print sheet;

a physical N-page printing arranging step of arranging the drawing data of each page at a center of each of equal N-divided areas of a physical sheet by scaling-down;

a printable region N-page printing arranging step of arranging the drawing data of each page in each of equal N-divided areas of a printable region on a physical sheet by scaling-down; and

a determining step of determining which one of said

physical N-page printing arranging step and said printable region N-page printing arranging step is employed to execute processing for arranging the pages, when the designation of N-page printing is entered in said entry step.

17. A printing control method according to Claim 16, further comprising a condition acquiring step of acquiring a physical N-page printing condition,

wherein said determining step determines, based on the physical N-page printing condition acquired in said condition acquiring step, which one of said physical N-page printing arranging step and said printable region N-page printing arranging step is employed to execute processing for arranging the pages.

18. A printing control method according to Claim 17, wherein said physical N-page printing condition is information indicating which one of plural types of N-page printing is set to physical N-page printing.

19. A printing control method according to Claim 17, wherein said physical N-page printing condition is information indicating that physical N-page printing is set when a predetermined output sheet size is designated.

20. An information processing method according to Claim 17, wherein said condition acquiring step acquires said physical N-page printing condition from an external device.

21. A printing control program executed in a printing control device for producing print data to be printed by a printing device, said printing control program including the steps of:

an entry step of entering a designation of N-page printing in which drawing data of N pages ( $N > 1$ , N is an integer) is printed on one print sheet;

an arranging step of, when the designation of N-page printing is entered in said entry step, arranging the drawing data of each page in each of equal N-divided areas of a physical sheet by scaling-down; and

a print-data producing step of producing print data based on the drawing data arranged in said arranging step.

22. A printing control program according to Claim 21, wherein said arranging step divides a printable region, which is obtained by subtracting print margins from sizes of the physical sheet, into equal N areas, and arranges the drawing data of each page in each of the equal N-divided areas by scaling-down.



23. A printing control program according to Claim 22, wherein said arranging step executes offset processing for each of the equal N-divided areas of the printable region on said physical sheet such that four sides of each said area, for which print margins are not subtracted from the sizes of the four sides thereof, are offset in amounts corresponding to the print margins.

24. A printing control program according to Claim 21, further comprising a spooling step of temporarily storing, in the form of intermediate data, drawing data input from an application through drawing means of OS,

wherein said arranging step executes processing to arrange the drawing data, temporarily stored in said spooling step, in each of the equal N-divided areas by scaling-down.

25. A printing control program according to Claim 24, further comprising a drawing-function producing step of producing drawing functions, which are interpretable by said drawing means of the OS, based on the drawing data arranged in said arranging step,

wherein said print-data producing step produces print data based on the drawing data input through said drawing

means of the OS in accordance with the drawing functions produced in said drawing-function producing step.

26. A printing control program executed in a printing control device, the printing control program including the steps of:

an entry step of entering a designation of N-page printing in which drawing data of N pages ( $N > 1$ , N is an integer) is printed on one print sheet;

a physical N-page printing arranging step of arranging the drawing data of each page at a center of each of equal N-divided areas of a physical sheet by scaling-down;

a printable region N-page printing arranging step of arranging the drawing data of each page in each of equal N-divided areas of a printable region on a physical sheet by scaling-down; and

a determining step of determining which one of said physical N-page printing arranging step and said printable region N-page printing arranging step is employed to execute processing for arranging the pages, when the designation of N-page printing is entered in said entry step.

27. A printing control program according to Claim 26, further comprising a condition acquiring step of acquiring a physical N-page printing condition,

wherein said determining step determines, based on the physical N-page printing condition acquired in said condition acquiring step, which one of said physical N-page printing arranging step and said printable region N-page printing arranging step is employed to execute processing for arranging the pages.

28. A printing control program according to Claim 27, wherein said physical N-page printing condition is information indicating which one of plural types of N-page printing is set to physical N-page printing.

29. A printing control program according to Claim 27, wherein said physical N-page printing condition is information indicating that physical N-page printing is set when a predetermined output sheet size is designated.

30. An information processing program according to Claim 27, wherein said condition acquiring step acquires said physical N-page printing condition from an external device.

31. A storage medium product storing a printing control program executed in a printing control device for producing print data to be printed by a printing device,

said printing control program including the steps of:

an entry step of entering a designation of N-page printing in which drawing data of N pages ( $N > 1$ , N is an integer) is printed on one print sheet;

an arranging step of, when the designation of N-page printing is entered in said entry step, arranging the drawing data of each page in each of equal N-divided areas of a physical sheet by scaling-down; and

a print-data producing step of producing print data based on the drawing data arranged in said arranging step.

32. A storage medium product storing a printing control program executed in a printing control device, the printing control program including the steps of:

an entry step of entering a designation of N-page printing in which drawing data of N pages ( $N > 1$ , N is an integer) is printed on one print sheet;

a physical N-page printing arranging step of arranging the drawing data of each page at a center of each of equal N-divided areas of a physical sheet by scaling-down;

a printable region N-page printing arranging step of arranging the drawing data of each page in each of equal N-divided areas of a printable region on a physical sheet by scaling-down; and

a determining step of determining which one of said

physical N-page printing arranging step and said printable region N-page printing arranging step is employed to execute processing for arranging the pages, when the designation of N-page printing is entered in said entry step.